



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/771,313

01/27/2001

Thomas Clyde Banwell

1237-US

7649

9941

7590

04/22/2005

TELCORDIA TECHNOLOGIES, INC.
ONE TELCORDIA DRIVE 5G116
PISCATAWAY, NJ 08854-4157

EXAMINER

STEVENS, ROBERTA A

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/771,313

Applicant(s)

BANWELL ET AL.

Examiner

Roberta A Stevens

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 16-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 16-18 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12, 16-18 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kracht (U.S. 6377987 B1) in view of Oliva (U.S. 6654802 B1).
3. Regarding claim 12 Kracht teaches a method for realizing the physical layer topology of a network comprising a plurality of distinct domains, comprising: storing an electronic serial number and model number for network elements of the distinct domain (col. 7 – col. 8, line 60); sending a request packet to a network element in one of the domains for use in a physical layer auto-discovery protocol, comprising a first packet protocol identifier (col. 8, line 61 – col. 10, line 55); receiving a response packet from the network element for use in a physical layer auto-discovery protocol, comprising a second packet protocol identifier, electronic serial number and model number of the network element (col. 8, line 61 – col. 10, line 55); and providing the response packet to a network management system common to all of the distinct domains (col. 13, line 59 – col. 14, line 35).
4. Kracht does not teach the auto-discovery at the layer below the IP layer.
5. Oliva teaches (col. 5, lines 12 – col. 6, line 14) network topology auto-discovery at a layer below the IP layer (physical layer). It would have been obvious to one of ordinary skill in

Art Unit: 2665

the art to adapt this to Kracht's system to prevent reduction of payload information carrying-capacity or bandwidth of the network links or without interrupting existing payload traffic.

6. Kracht does not teach the packet comprising a sequence number.

7. Oliva teaches (col. 8, lines 27-55) a sequence number in the structure of information. It would have been obvious to one of ordinary skill in this art to adapt to Kracht's system Oliva's concept of sequence numbers to maintain order within the system's transmission of data.

8. Regarding claims 16, 20 and 23, Oliva teaches (col. 5, lines 12 – col. 6, line 14) the physical layer auto discovery is at the lowest layer below any other protocol domain in the stack, in order to be able to discover elements within all high-layered protocol domains.

9. Regarding claim 17, Kracht teaches a system for realizing the physical layer topology of a network comprising a plurality of distinct domains, comprising: a network management system common to the plurality of distinct domains; means for identifying network elements in the domains by encoded serial and model numbers (col. 7 – col. 8, line 60); means responsive to a request for conducting a physical layer auto-discovery protocol for a network element in one of the domains (col. 8, line 61 – col. 10, line 55); means for receiving a response packet from one of the domains requested to conduct a physical auto-discovery protocol; and means for warding the response to the network management system (col. 7 – col. 8, line 60, col. 13, line 59 – col. 14, line 35).

10. Kracht does not teach the auto-discovery at the layer below the IP layer.

Art Unit: 2665

11. Oliva teaches (col. 5, lines 12 – col. 6, line 14) network topology auto-discovery at a layer below the IP layer (physical layer). It would have been obvious to one of ordinary skill in the art to adapt this to Kracht's system to prevent reduction of payload information carrying-capacity or bandwidth of the network links or without interrupting existing payload traffic.

12. Regarding claim 18, Kracht teaches (figure 10) an optical network.

13. Regarding claim 21, Kracht teaches a method for realizing the physical layer topology of a network comprising a plurality of distinct domains and a network management system common to the distinct domains, comprising: uniquely identifying network elements in the domains (col. 7 – col. 8, line 60); sending a request packet to one of the domains; conducting a physical layer auto-discovery at a low level in the protocol stack at the one domain for a specific network element at the one domain in response to the request packet (col. 8, line 61 – col. 10, line 55 and col. 8, line 61 – col. 10, line 55); forwarding a response packet from the one domain; and providing the response packet to the network management system (col. 13, line 59 – col. 14, line 35).

14. Kracht does not teach the auto-discovery at the layer below the IP layer.

15. Oliva teaches (col. 5, lines 12 – col. 6, line 14) network topology auto-discovery at a layer below the IP layer (physical layer). It would have been obvious to one of ordinary skill in the art to adapt this to Kracht's system to prevent reduction of payload information carrying-capacity or bandwidth of the network links or without interrupting existing payload traffic.

Art Unit: 2665

16. Regarding claim 22, Kracht teaches (col. 7 – col. 8, line 60) electronically storing the serial and model numbers of the network elements.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Stevens whose telephone number is 571-272-3161.

The examiner can normally be reached on M-F 9:00am-5:30pm.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2665

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roberta A Stevens
Examiner
Art Unit 2665

A handwritten signature in black ink, appearing to be 'STEVEN NGUYEN', with a long, sweeping horizontal line extending to the right.

STEVEN NGUYEN
PRIMARY EXAMINER